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REPORT AND RECOMMENDATIONS
of the
MARKETING RESEARCH ADVISORY COMMITTEE
Developed at its meeting in Washington, D. C.
January 4-7, 1965

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PREFACE

The annual meeting of the Marketing Research Advisory Committee was held in Washington, D. C., January 4-7, 1965, with eleven of the fourteen members present. The sessions on the first day were open to the public. On the second day there was a tour of Department marketing research facilities at Beltsville, Maryland.

As a basis for its recommendations and comments, the Committee made a systematic review of the Department's marketing research programs as summarized in a progress report made available to the Committee in advance of the meeting. The progress report material was supplemented by oral reports, visual materials, and discussion by program leaders from the following USDA research divisions and agency units: Market Quality Research Division and Transportation and Facilities Research Division, Agricultural Research Service; Marketing Economics Research Division, Economic Research Service; Standards and Research Division, Statistical Reporting Service; and marketing work of the Farmer Cooperative Service.

Dr. Nyle C. Brady, Director, Science and Education, served as Chairman of the Committee, and Dr. Omer W. Herrmann, Deputy Administrator for Marketing Research, Agricultural Research Service, served as Vice Chairman.

After careful review of the information available, and based upon current and future need for new knowledge and the seriousness of problems faced by the industry, the Committee made the following comments and recommendations.

COMMITTEE COMMENTS AND RECOMMENDATIONS

I. GENERAL

Marketing Research Consumer Oriented. The Committee firmly believes that the essence of marketing is the design and development of products of a nature, type, size, shape, color and flavor desired by the consumer. Consumer market research should in most cases precede actual development of agricultural products. The Department should take the leadership in this area, specifically by establishing sound channels of communication between its marketing and production divisions with the objective of improving marketability of American agricultural products from the initial stage of design and production. Emphasis should be on the production of products specifically suited to consumer needs, wishes, and convenience.

Scientific Manpower Training and Environment. In view of the highly competitive manpower market in professional scientific personnel, the Committee strongly urges that every effort should be made by USDA to attract competent professional scientific personnel, to support their efforts in every way (including both equipment and technicians), and to retain them by providing opportunities for training and advancement and a proper environment in which to pursue their work. Greater emphasis should be placed on defining and spelling out specific objectives of applied and developmental research, and conducting it on reasonable time-tables and programs, with provision for periodic review and evaluation both by the USDA and by the advisory committees.

The Committee further feels that careful consideration should be given to organization of professional personnel on an interdisciplinary basis rather than along strict commodity lines.

The Department should attempt, as quickly as possible, to assemble, analyze and disseminate, with the cooperation of the National Association of Market Officials and State government marketing agencies, the basic information concerning marketing programs and marketing regulations imposed by State governments which relate to the movement of horticultural and special crops. The National Agricultural Library should be especially helpful in this area.

II. ECONOMIC RESEARCH

The Committee was very favorably impressed with the chart presentation outlining the structure of the agricultural marketing system, its components, and the changes which have occurred in the post-war years. It recommends that this information be made available in printed form as well as on projection slides for general distribution as soon as possible.

Market Structure and Costs. Research on factors affecting farm-retail price spreads in relation to changes in amounts of food inputs into the marketing system should be pursued vigorously.

Studies should be initiated relating to effects of changes in freight rate structures on existing industry locations and pursued actively. Special emphasis should be given to the effects of recent changes in grain rates and the introduction of reduced rates for multiple-car and unit-train shipments.

Research directed toward determining the effects of direct buying of food-stuffs by chain retailers, cooperatives, and other groups from manufacturers or producers rather than from wholesalers also should be initiated.

Market Potentials for New Products. Market potentials for new products and new uses for existing basic products should be vigorously explored with special reference to those commodities which are presently and for the future appear to be in the "surplus" category. Foreign market potentials also should be explored.

Merchandising Potentials and Promotion Practices. Research directed toward determining possibilities of increased consumption of agricultural commodities which are high users of agricultural resources should be continued. Foreign market outlets, especially for dollars, should be well explored. Any research directed toward reducing inefficiencies and the improvement of managerial decisions in smaller agricultural and food-marketing firms is highly recommended. It is also suggested that USDA research bulletins in this area direct attention to Small Business Administration Management Research Reports which also may be very helpful to small businesses with problems in this area.

Food Distribution Programs. Research studies of the Food Stamp, School Lunch, and other Food Distribution Programs should be continued at levels adequate for effective periodic appraisals of these programs. The data gathered in the new Decennial Food Consumption Survey should be most helpful for appraisals and adjustments in these programs as well as for many other research programs.

Transportation Costs and Services. Research should be continued in the areas of: (1) truck transportation of farm and food products, both to movement and transportation costs; (2) filling the gaps in data relating to both highway and domestic water transportation of agricultural commodities and products; (3) measurement of carrier costs in relation to the level and trend of rates and charges paid by users of transportation service; (4) the problems of hauling exempt commodities by regulated carriers; and (5) measuring the effects of technological changes in transportation methods as they affect the movement of agricultural commodities.

The proposed research on the effects of changes in freight rates, especially rail, forecasting of agricultural transportation requirements, and flow patterns of manufactured agricultural commodities is recommended. Insofar as the I.C.C. Rail Carload Waybill Analyses and the Corps of Engineers Flow Studies for Great Lakes transportation are pertinent, the proposed flow research will be materially helped.

The present work of updating the North Central grain transportation study and progress toward the completion of the grain studies in other areas and the fruit and vegetable flow study from the California-Arizona area is to be commended.

Fibers and Grains. Research on margins, costs, and efficiencies; market structures and practices; and economic evaluation of product quality of fibers and grains should be continued. Consideration should be given to the effects of occasional use in the United States of profits gained abroad on investments of domestic firms in existing facilities and on their operating margins.

Consumer Preference and Quality Discrimination. As a basic and critical element of total marketing activity, research on consumer preference in various areas should be continued and expanded. For example, the problem of uses of hides (leather), now facing severe competition from synthetic materials for shoes, should be thoroughly investigated. Similarly, research on consumer preferences for natural fibers (cotton) in household and industrial uses should be pursued intensively.

Cooperative Marketing. The research program related to problems of farmer cooperatives appears to be highly productive, and results should be most helpful to many segments of agriculture. Proposed research in the areas of: (1) marketing coordination; (2) improving cooperative sales and distribution methods; (3) potentials in cooperative marketing; (4) pooling and pricing; (5) improving operating methods in processing and storage (including packaging); (6) effects of changing transportation rates and services on grain handling practices of farmer cooperatives; (7) costs and efficiencies of feedmills of different sizes; and (8) improvements in financing of livestock cooperatives should be initiated.

It is reasonable to expect, however, that some, if not all, of the above objectives could be achieved by judicious consolidation of cooperatives. We, therefore, strongly recommend that the Department undertake research studies to determine where and under what conditions consolidation or merger will improve services, reduce costs, and add bargaining strength for the benefit of the farmer.

III. MARKET QUALITY RESEARCH

Fundamental Research. The Committee commends the greater emphasis on basic research in developing guides for measuring market quality and urges that these programs be continued and expanded. Specifically the Committee believes that increased attention should be given initially to: (1) the biological aspects of mechanical harvesting of fruits and vegetables, in addition to citrus; (2) the physiological, chemical, and biological aspects of ripening of deciduous fruits; (3) the fundamental studies of post-harvest respiration of fruits and vegetables; (4) the microbiological and physiological reactions related to germination and viability of seeds; and (5) the chemical-biological studies associated with the chronological and physiological maturity of meat.

Insect Control. The Committee commends the expanded work on insect control and believes that more scientific manpower should be assigned to the basic biology, ecology, and physiology phases.

The work on nonchemical control of insects should be continued, but as early as possible during the studies, the preliminary economic aspects of these techniques should be evaluated.

In connection with insect control, a portion of the professional governmental manpower devoted to this field should be assigned to a formal program of continuously keeping abreast by field trips, consultations, participation in scientific association activities, etc., of entomological developments in research being carried out by other governmental agencies, universities, and by industry. In this way, duplication will be avoided and coordination improved.

The Committee recommends new or expanded work for determination of simple, effective methods of pesticide residue detection in agricultural commodities in order to cut down time factors and expense involved in determining contamination. It is believed this new methodology work could be most effectively done by one professional group.

Instrumentation. In connection with developments of instruments for measuring market quality, the Committee recommends that the importance of a particular market quality characteristic be established. This should be done using consumer preference testing methods, before detailed instrumentation work is initiated. It is difficult to get equipment manufacturers to spend money to develop commercial machines because the sale of such machines is limited especially if more than one equipment manufacturer entered the field. Consideration therefore should be given to finding ways and means of the U. S. Department of Agriculture giving exclusive license to a manufacturer for a reasonable time. The Committee commends the development of the Horticultural Difference Meter which is capable of measuring maturity, water core, and internal browning, and the progress in development of moisture meters for seeds and grains.

The Committee commends the work on the development of sampling devices. This is especially needed because of the increased use of bulk handling and blending of agricultural commodities.

Practical Bacteriological Standards. It is the opinion of the Committee that considerably more basic microbiological research is needed before bacteriological standards can be set for poultry and other agricultural products. It believes that research scientists in the Market Quality Research Division should cooperate closely with other governmental agencies, academic institutions, and industries in carrying out research on these important public health and market quality standards.

Foreign Market Laboratory. The Committee recommends that a pilot market laboratory be set up in Europe to determine the market quality of U. S. agricultural products received in foreign markets.

IV. TRANSPORTATION AND FACILITIES RESEARCH

Planning Improved Market Facilities. The Committee is impressed with the work being done in planning improved market facilities, and looks with favor on a pilot project to plan a terminal livestock market facility. However, such planning should only be done provided full cooperation can be obtained from local agencies.

In view of the considerable experience which the Department has attained in terminal market facility planning over the years, the Committee feels that it is time for USDA to develop a manual of the principles and guidelines associated with planning such facilities. This manual would be a valuable contribution for the future work not only by Department personnel but also that by local groups, municipal authorities, city planners, architects, engineers, and others concerned with the problems of actual construction of terminal market facilities.

Transport Equipment and Techniques. In view of the critical nature of transport costs and techniques to the marketing of agricultural products, the Committee is pleased to note that additional funds have been made available for research in this vital area.

Research on multipurpose transport vehicles and containerization, both large and small types, including multi-temperature containers for domestic and foreign transportation, should be accelerated and expanded to include the organization of systems for containerizing and unitizing: i.e., ownership, utilization, etc.

Research also should be expanded on the design of transportation equipment with emphasis on its adaptation to modern materials handling methods, and proper protection of agricultural products during shipment. Emphasis should be placed on: (1) the development of transport refrigeration that will have

fewer breakdowns, be lighter in weight, less costly; (2) improving designs of freight cars, trucks, piggyback trailers, transferable van bodies and multipurpose vehicles; (3) reducing costs by better utilization of available transportation equipment and services.

Additional resources should be made available for work on the proper handling, storing, and transporting vast amounts of grain.

Research should be continued and expanded on improved methods of packaging and transporting flowers and ornamentals.

Recent improvements in air transport have increased the opportunities to expand its use in marketing a number of agricultural perishables. These improvements include larger and faster planes with lower operating costs, containerization and improved cargo handling methods. The speed of air transport and improved handling techniques should provide savings in packaging, handling and refrigeration costs and reduce product and quality losses. Research should be undertaken to find ways to use the new technology to do a better job of transporting perishable farm products. However, the Committee feels strongly that every reasonable effort should be made to secure assistance in financing this research by securing matching funds from the air transport industry.

Consumer Packages and Shipping Containers. Increased work on better packages and shipping containers for fruits and vegetables for foreign and domestic shipments, considering use of new materials and lighter containers, should be continued and expanded. The Committee also feels that work should be initiated to improve the packaging of baled cotton which must compete in domestic and world markets.

To combat increasing competition in world markets and rising costs at home, more emphasis should be placed on developing lighter, stronger, and more protective packages and containers specifically designed to maintain optimum temperatures and humidity in both domestic or foreign shipments by land, air, or sea. Expanded research also is needed on new methods of preparing and packaging fresh fruits and vegetables both for domestic and overseas markets.

At the present time, the USDA purchases substantial quantities of food for direct donation, school lunch programs, Food for Peace, etc. Commercial packages and packaging materials are generally specified for the products purchased under these programs. Adequate consideration is not given to whether the product is under-packaged or over-packaged. Research should be undertaken to determine the packaging needs for products purchased under current and future USDA programs, and to set up standards which can be used by commodity inspectors.

Wholesaling and Retailing Research. The cost of distributing (wholesaling and retailing) food is approximately \$20 billion per year. It represents about one-half of the cost of marketing. Obviously, holding down or reducing these distribution costs is of paramount importance to the producer and consumer. It is evident that continuing research is urgently needed in this field since the efficiency of the food distribution system has a profound effect upon the welfare of the farmer.

The Committee is convinced that the research done by the Wholesaling and Retailing Branch is inadequately described by its branch name. The connotation of these terms is that the research is designed to be of primary benefit to wholesalers and retailers while, in fact, this is not the case. The primary concern of the Branch is to help distribute the farmer's production to consumers in as good condition and at as low a cost as possible. These objectives are obtained by working through distributors and giving them a short run advantage in lower costs which is passed on, through competition, to consumers or producers. Therefore, the Committee recommends that the name of the Wholesaling and Retailing Research Branch be changed to "Distribution Research Branch." The term "distribution" has been widely accepted by public agencies and industry to describe this activity.

The research conducted by this Branch has been particularly effective in holding down food distribution costs, and has thereby served the interest of both the producer, in obtaining a larger market for his product, and the consumer, by making "food a bargain." However, only the very large firms can afford research facilities and their findings are trade secrets and therefore are not made public. Thus, contributions to public knowledge in this field must come mainly from publicly-supported research. Such research has special significance to the small firms (accounting for 60 percent of the total food sales) that cannot afford to do their own research.

Industry contributes to USDA research in numerous ways, such as furnishing the free use of its facilities, equipment, materials, and supplies in experiments and tests. Also in some cases industry groups have made cash contributions and furnished personnel to help with the work in this field. Contributions in some instances have reached as much as 90 percent of the total research cost. Research by USDA frequently serves as a catalyst or stimulus to industry investigations and progress. The Committee believes the Department badly needs the continued provision of unbiased information and guidance that a group of distribution research specialists could give them in understanding the problems of moving the vast volumes of farm products to the consumer.

The Committee was impressed by the dedication of the research workers and by the professional quality and quantity of the research that has been accomplished in food wholesaling and retailing with the small quantity of resources that are available. The Committee was greatly disturbed to learn that funds are not being requested of Congress to continue the wholesaling and retailing

research after July 1, 1965. We urgently request that these funds be restored to the budget to continue the research currently underway and planned and that funds for distribution (wholesaling and retailing) research be increased to undertake research in the following areas:

(1) Lower Cost Systems for Handling Grocery and Perishable Products from Manufacturer to Retail Store Shelf. Research should be initiated to evaluate alternative handling systems between manufacturer, wholesale distributor or chain warehouse and retail outlet. Many new and existing handling techniques in the field of food distribution are concerned only with the cost to one segment of the marketing chain, and savings at one level may add costs to another. Basic data available to the Branch makes it uniquely qualified to undertake such studies, although some additional data of a time study or industrial engineering nature may be needed. Special studies of systems for order assembly, pallet shipping bins, display bins shipped from warehouses, and inventory control methods would be included.

(2) Improved Handling of Food Through Institutional Wholesalers and Public Eating Places. Nearly one-fifth of the food volume reaches consumers through public eating places and institutional outlets. It is estimated food consumption away from home will increase 25 percent in the next few years. Costs of distributing food to and through eating places have been traditionally high and remain so. Institutional wholesalers supply these eating places, which consist of thousands of small independent operators, many of whom are willing and eager to modernize but need guidance and leadership. We feel that institutional wholesaling costs can be reduced by 25 percent or more with improved facilities, work methods, and procedures, and that substantial efficiencies may be obtained by improved methods of handling food inside the institutional outlets themselves.

Integrated System Approach. This Committee has been most favorably impressed by the separate activities of the Transportation and Facilities Research Division. However, it feels that the time has come to take a systems approach to the entire area--as an integrated system--within the Division's scope, with particular emphasis on the marketing activities that take place after initial processing steps.

